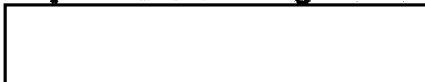


25X1A [redacted] #1382

26 September 1967

25X1A [redacted]  
Contracting Officer  
Post Office Box 6788  
Fort Davis Station  
Washington, D. C. 20020

25X1A Subject: Request for Funding



Dear Sir:

As a result of the activities of this contractor in close coordination with the technical representatives of your organization over the past several months, and the meeting held at your facility on the same subject on 7 September 1967, [redacted] submits herewith a request for funding to accomplish further effort on the subject contract and to accomplish added tasks to improve the systems.

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25X1A We have divided the funding request into several individual parts with supporting cost sheets for each. The overrun funding request attached hereto is for the full amount estimated to accomplish the overrun tasks. This contractor understands that the actual contractual funding will be only 75% of that shown. The request for added task funds is made using overhead and G & A rates as covered by the negotiations under subject contract, i.e., a fixed overhead rate of [redacted] and a G & A rate of 25%. The alignment microscope and training program are separate and distinct (and in the case of the microscope involves commercial products); these are being submitted at our current rates rather than the fixed contractual rates.

The request for funding, as applicable to the 405B machine, is covered in Exhibit "A" for the accomplishment of the following tasks on the five machines as originally delivered under subject contract. Our activities will be to fabricate and install in three separate operations, i.e., accomplishment on the first two 405 machines presently at

DECLASS REVIEW by NIMA/DOD

CONFIDENTIAL

GROUP 1  
EXCLUDED FROM AUTOMATIC  
DOWNGRADING AND  
DECLASSIFICATION

Received  
30 Oct 1967

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26 September 1967

our facility, on another group of two machines to be delivered to these facilities upon acceptance of the first two, and thirdly, to be accomplished on the last machine at the same time they are accomplished on the 405AM machine after the delivery of the second two 405B machines.

The overrun tasks to be accomplished are as follows:

- a. Fabricate new mounting mechanisms for improved operation of negator springs.
- b. Redesign of the curtain assembly for improved operation.
- c. Reduce warm-up time (ready light) for power turn-off (inadvertent) to minimize stabilizing time rather than full 45 minute warm-up upon initial turn-on.
- d. Replacement of nameplate on front panel from 3/8 amp to 3/4 amp.
- e. Update manual of operating procedures to the equipment's latest configuration.
- f. Update drawings as provided by the contract to depict final configuration.

The following added tasks, applicable to the 405B machines, are herewith provided with cost analyses noted below.

Exhibit "B" covers the following added tasks,

- a. Modification of the head rest structure for improved support.
- b. Providing an access cover for ventilation and viewing of the pump assembly (water level).
- c. Access cover in machine sheet metal cover for adjustment of X axis interferometer.
- d. Access cover in sheet metal cover and headrest support for adjustment of Y axis interferometer.
- e. Wiring and placement of test points on front panel of digitizer for checking voltage level on Schmitt trigger circuits. This

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requires relocation of high voltage potentiometers to the front panel. Study has shown that the high voltage potentiometer value and resolution are correct as designed, and we recommend no change.

f. Installation of chassis guide rails for easier access to both digitizer chasses.

Exhibit "C" covers the cost of adding a knee guide to the center opening of the 405B machines to prevent the operator's knees from touching the working table.

Exhibit "D" covers supplying of an alignment microscope which can be used with any of the interferometers provided on the 405B or 405A contracts. This microscope is used to align the interferometers with the basic working tables. It is an item which is also offered as an option to our commercial interferometer customers.

Exhibit "E" covers the cost for conducting a training program at our facility for your calibration and maintenance personnel.

A description of the training program is contained in Exhibit "F". It is our suggestion that this training program be conducted during the system test phase when the second two 405 machines are modified and assembled in our plant.

Exhibit "G" contains a list of our recommended spare parts for maintaining both the 405B and 405AM machines, with unit prices and totals applicable to quantity recommended.

Exhibits "H-1" and "H-2" cover costs to modify the 405AM machine to make it equal to the 405B machines with the added tasks as recommended above. (Exhibits H-1 and H-2 relate respectively to Exhibits B and C.) In addition to the added tasks as described above, the following tasks will also be accomplished.

a. Modification of the microscope focus mechanisms equivalent to the 405B to provide improved reliability and minimize backlash. If a new design is desired, a separate quotation will be prepared.

b. Modification of the general illumination to improve the cut-off of the light on the chip format.

It should be pointed out that the spare parts list, the alignment microscope, and the training program suggested above are equally applicable to the 405AM.

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Certain of the added tasks described above are presently being accomplished on the two 405B machines in our possession, and some of these added tasks have already been installed on the 405AM machine. The remaining tasks on the 405AM will be accomplished upon its return to our facility. It is our understanding that these actions are essential to the proper utilization of the equipment by your personnel, and we have accordingly taken this action in the best interests of both parties.

As pointed out above, action to improve the equipment has already been instituted. Your expeditious review of our funding request herein will be appreciated. If we can provide you with any additional information or expand on that provided herein, please do not hesitate to contact us and we will be happy to accommodate your request.

Very truly yours,

Executive Vice President

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LHB/aw  
Encs.

cc:

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405B - EXHIBIT F

26 September 1967

TRAINING PROGRAM

For three (3) or four (4) customer trainees -

I Lecture Sessions

1. Theory
2. Operation
3. Maintenance
  - a) 405 mechanisms
  - b) Interferometer Optics-Tracking
  - c) Electronic System

II Shop Sessions - using two (2) 405B Machines

1. Standard daily and weekly Test Procedures
2. Standard weekly Adjustment Procedure
3. Special repeatability measurement with grid.
4. Alignment and Tracking - on ☐ supplied Interferometer on test bench. 25X1A
5. Electronic Adjustment, Maintenance, and Trouble Shooting  
(using ☐ supplied System)
  - a) Photomultiplier
  - b) Preamplifiers
  - c) Difference amplifiers
  - d) Schmitt triggers
  - e) Pulse generators
  - f) Cooling System
  - g) Automatic compensator

Exhibit "G"

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405B SPARE PARTS LIST  
Interferometers - 12 Units

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<u>QUANTITY</u> <u>PER UNIT</u>	<u>RECOM.</u> <u>QTY.</u>	<u>PART</u> <u>NO.</u>	<u>DESCRIPTION</u>
1	2	403291	Lamp Hous. Ass'y
3	6	106358	Phototube IP21
3	6	106359	Tube (Ampl.)
1	6	106768	Tube (Oscil.)
3	40	106292	Fuse, 3A, Slo Blo
1	20	111573-3	Fuse, 1/4B, Slo Blo
2	10	108825	Lamp Neon
2	4	113298	Motor, 1 RPM
2	6	109164	Relay, Ultrasensit.
1	4	113301	Relay, Time Delay
2	6	113299	Potentiometer
4	8	111501	Transistor
2	4	113296	Capacitor
2	4	111606	Relay
2	4	111623	Heater Cartridge
2	4	404509	Fan, Muffin
2	4	404816	Pump, Modified
2	6	107902	Klipcell
1	6	108069	Transistor, 2N2646
6	12	106327	Transistor, 2N404
9	30	106328	Transistor, 2N428
1	6	108070	SCR, 2N2323
8	24	107234	Diode, 10D10
6	12	108071	Diode, IN1692
8	24	106326	Diode, IN626

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Exhibit "G"

20 September 1967

405B SPARE PARTS LIST

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Basic Machine - 6 Machines

<u>QUANTITY</u> <u>PER UNIT</u>	<u>RECOM</u> <u>QTY.</u>	<u>PART</u> <u>NO.</u>	<u>DESCRIPTION</u>	
1	6	106553	Belt, Spindle Tape	\$
3	6	106913	Valve Solenoid	
4	12	107031	Capacitor	
2	6	107420	Muffin Fan	
2	6	108090	Motor Drive	
12	24	108650	Micro Switch	
12	24	108651	Actuator, Switch	
2	6	108653	Illuminator	
4	12	108654	Capacitor	
4	12	108655	Disc Motor	
2	36	108659	Lamp (Illum.)	
2	36	108660	Lamp (High Inten.)	
1	3	108698	Propeller Fan	
1	3	108802	Transformer	
2	6	108803	Rotary Switch	
8	12	108805	Switch, Toggle	
2	6	108806	Switch, Toggle	
2	6	108807	Rheostat	
1	3	108808	Circuit Breaker	
1	10	108825	Neon Lamp	
1	3	108889	Foot Switch	
2	6	108943	Rocker Switch	
4	12	108944	Micro Switch	
4	12	108945	Roller Leaf	
1	20	108946	Fuse, 10A, Slo-Blo	
1	20	108947	Fuse, 1-1/4A, Slo-Blo	
3	40	108949	Fuse, 3/8A, Slo-Blo	
2	20	108951	Fuse, 3/4A, Slo-Blo	

Exhibit "G"

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405B SPARE PARTS LIST

Basic Machine - 6 Machines

25X1A

<u>QUANTITY</u> <u>PER /UNIT</u>	<u>RECOM.</u> <u>QTY.</u>	<u>PART</u> <u>NO.</u>	<u>DESCRIPTION</u>
2	6	109087	Belt, Drive
1	6	109105	Rocker (Y)
1	6	109106	Rocker (X)
2	3	601438	Mirror
2	3	601810	Platen, Vacuum
1	3	601858	Filter, RF Ass'y
1	3	701021	Plate, Support

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